

**Tate & Lyle Ingredients Americas, Inc.
Aroostook County
Houlton, Maine
A-64-71-I-M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Tate & Lyle Ingredients Americas, Inc.'s Houlton Plant (Tate and Lyle - Houlton) was issued Air Emission License A-64-71-G-R on January 12, 2004, permitting the operation of emission sources associated with their starch manufacturing facility. The license was subsequently amended on March 22, 2005 (A-64-71-H-M).
2. Tate & Lyle - Houlton has requested a minor revision to their license in order to install and operate a new tapioca storage bin and truck unloading system.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Process Equipment

Unit #, Equipment Description	Production Rate	Pollution Control, Efficiency	Stack #
#22 Tapioca Bin	60,000 lb/hr tapioca	Baghouse, >99%	20

C. Application Classification

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Tapioca Storage Bin and Truck Unloading System

The new Tapioca Storage Bin and Truck Unloading System will allow the pneumatic transfer of tapioca from a bulk truck to the storage bin. The system will be designed so that 60,000 lb/hr of tapioca (on a dry weight basis) can be transferred from truck to storage bin. The tapioca will then be transferred to the existing reslurry tanks. The Tapioca Storage Bin will be equipped with a baghouse, which represents BACT for the control of particulate matter emissions. The baghouse will exhaust to a 60-foot tall stack. The process schematic is shown above.

Using a grain loading rate of 0.01 gr/scf and assuming continuous operation, the Tapioca Storage Bin and Truck Unloading System will have the potential to emit 0.18 lb/hr of PM and 0.81 tons/year.

The baghouse shall meet the opacity requirements of MEDEP Chapter 101.

C. Annual Emissions

Tate & Lyle - Houlton shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	HAP (Propylene Oxide)
Boilers	18.0	18.0	-- ¹	44.4	4.0	0.23	--
Generator	0.05	0.05	-- ¹	0.67	0.15	0.06	--
A, B, C, D & E Reactors and Starch Modification	--	--	--	--	--	9.9	9.9
Tapioca Storage Bin	0.81	0.81	--	--	--	--	--
Total TPY	18.86	18.86	99.9¹	45.07	4.15	10.19	9.9

¹Unit SO₂ ton/year emissions vary due to variable sulfur contents of fuels being fired. Total emissions are limited to 99.9 tons/year.

ORDER

The Department hereby grants Air Emission License Minor Revision A-64-71-I-M, subject to the conditions found in Air Emission License A-64-71-G-R, amendment A-64-71-H-M and the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

The following is a new Condition:

(25) Tapioca Storage Tank

- A. Tate & Lyle – Houlton shall operate the Tapioca Storage Tank with a baghouse. [MEDEP Chapter 115, BACT]
- B. The Tapioca Storage Tank baghouse shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hour period. Tate & Lyle – Houlton shall take corrective action if visible emissions from the baghouse exceed 5% opacity. [MEDEP Chapter 101]

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C. Tate & Lyle shall maintain a log detailing all routine and non-routine maintenance on the Tapioca Storage Tank baghouse. The log shall contain the location, date, nature of failure, and action taken to correct the failure. [MEDEP Chapter 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-64-71-G-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 8, 2006

Date of application acceptance: May 10, 2006

Date filed with the Board of Environmental Protection: _____

This Order prepared by Rachel E. Pilling, Bureau of Air Quality.